

**Report to Senate**  
**External Reviews of Academic Units and Programs at UBC Okanagan**  
**2015 – 2016**  
April-26, 2017

Submitted by: Dr. Patricia Lasserre, Associate Provost, Enrolment and Academic Programs

External reviews were conducted on the following academic units and programs at UBC Okanagan between September 1, 2015 and August 31, 2016. Key findings and recommendations made by the reviewer teams, along with the Faculty and/or Department responses, are highlighted on the following pages and comprise the remainder of this report.

	<u>Page</u>
<b><u>Faculty of Applied Science</u></b>	
❖ School of Engineering – November 2015 .....	2
<b><u>College of Graduate Studies</u></b>	
❖ College Review – February 2016 .....	5

**School of Engineering**  
**Faculty of Applied Science**  
Summary of External Review: November 2015

Highlights and Key Findings:

- The School of Engineering (SoE) has grown to be one of the strongest faculties at UBC-O.
- There is potential for further growth in terms of new programs and the number of students and there is evidence of strong student demand for the SoE programs.
- The faculty and staff are highly energetic, committed and collegial, working together to address issues.
- The design team approach and communication skills of the students adopted within the undergrad program, along with “hands on” capabilities of the students, is considered highly beneficial by the professional sector, which bodes well for significant job opportunities for the SoE graduates both now, and into the future.

Key recommendations and Unit's Response:

- Recommendation: think strategically as to whether the School of Engineering needs to further grow.

*Unit's Response: The School of Engineering views the growth of the School as an opportunity. It has developed a growth model guided by the following principles: 1) a 23:1 student to faculty ratio, 2) incremental growth over a 10 year period to allow for resourcing prior to implementation, 3) a 3:1 domestic to international student ratio, 4) maintaining a pedagogically strong learning environment with “design from the start,” (5) project and team-based learning, and, 6) continued accessibility to faculty and staff through an open door policy. In the next five years, the School will introduce three new programs and additional minors. This will lead to an increase in the number of undergraduate, graduate and international students, the number of faculty members as well as an increase in research funding. The implementation strategy includes a comprehensive space utilization plan to optimize class schedules; a task force has been established to prepare recommendations for this plan. Thus far, the task force has recommended that all first and second year classes be split into two sections. This adjustment will provide two benefits: maintain the intimate learning environment and allow for better access to classrooms. The School will ensure that students continue to receive appropriate support to develop their core competencies and succeed in their studies and careers.*

*Update from Associate Dean Rehan Sadiq: The School of Engineering has Minors in ‘Management’ and ‘Computer Science’. The three new program offerings under development include: Biomedical Engineering, Software Engineering, and DME. The School is also introducing a Mechatronics Option.*

- Recommendation: consider the long term risk of the movement of experienced instructors to upper level teaching, removing teaching expertise from lower level courses.

*Unit's Response: The number of first time instructors is not unusual for a new School, and the School has responded to this need by being highly selective with all of its sessional hires. The School has made significant inroads into the professional community in Kelowna and has successfully recruited industry professionals for more than half of the courses delivered by sessional lecturers. The School is equally selective when hiring graduate students to teach courses. All have passed their candidacy exams and have been recognized for excellence in teaching by the University. Many have received Teaching Assistantship awards.*

- Recommendation: Increase the number of grad courses available.

*Unit's Response: The School experimented with delivering graduate courses via video link in the past. It was not all together successful; however, we will explore the practicality of this option again. As the School continues to hire more faculty, we plan to grow the number of graduate courses we offer.*

*Update from Associate Dean Rehan Sadiq: The School has not explored the practicality of offering video link courses offered by the Vancouver campus.*

- Recommendation: consider female/male ratio, CRC allocation and teaching/research needs in future hiring.

*Unit's Response: The School of Engineering accepts the Reviewers' recommendations and will include these in the Faculty Recruitment Hiring Plan. Meeting the School's educational needs, and the need to increase gender equity will be important principles guiding future hiring. To ensure the School meets its teaching needs, the School plans to hire four 12-Month Lecturers this spring in readiness for the next Winter Session.*

*Update from Associate Dean Rehan Sadiq: The School only hired two 12 Month Lecturers for two consecutive years, not four as stated in the response.*

- Recommendation: undergraduate courses should be taught by faculty with the pertinent skillset.

*Unit's Response: The School agrees with the Reviewers' recommendation, and intend to initiate discussions with the Heads of Math and Computer Science regarding joint appointments.*

*Update from Associate Dean Rehan Sadiq: The School discussions with the Department of Computer Science, Math, Physics and Statistics have resulted in a Minor in Computer Science. Discussions are also underway regarding a new Software Engineering program, and if successful may result in joint faculty appointments.*

- Recommendation: improve coordination with partner institutions in recruitment and advising of transfer students to UBC O.

*Unit's Response: The School has been working closely with its eight University College transfer programs to develop a smoother transfer credit process. Earlier this fall, the School's academic advisor met with interested students and peer advisors at Thompson Rivers University, College of New Caledonia and Selkirk College. The purpose of those visits was to present the details of the transfer process and articulation agreements to prospective students and their colleges' academic advisors.*

- Recommendation: develop stronger connections between industry, alumni, and the engineering faculty.

*Unit's Response: The School of Engineering will be recruiting a 'Development Liaison' position in partnership with the Development Office. The successful candidate will support alumni relations and enhance industry relations. The School expects to fill this position March 2016.*

- Recommendation: create more opportunities for mentoring junior faculty members.

*Unit's Response: All new faculty are invited, by UBC Okanagan Human Resources department, to participate in their mentorship program. The Associate Dean of the School is a member of this program and few of our faculty members have registered as mentees. Moreover, the Director of the School formally meets with faculty members annually to discuss their career progress, and to provide support and feedback. The School and the Faculty of Applied Science also established a \$50,000 intercampus research collaboration fund to encourage research collaboration between the two campuses.*

- Recommendation: establish a minimum recommended compensation for Masters and PhD students

*Unit's Response: The School is not in favour of establishing minimum funding requirements. The average funding for PhD students is \$21,954 and \$18,120 for Masters Students. This level of funding is commensurate with universities of similar size across Canada. The School allocated \$100K for graduate student scholarships this year. This funding support is expected to continue and the School intends to increase this amount in future years.*

Other recommendations touches on the on-going need to support new faculty through start-up funds, mentoring, clear articulation of expectations, the need to support graduate students (minimum funding, standardization of directed study courses), improve lab access for undergrad students, as well as better communications for clarity and transparency on roles, processes and procedures.

## College of Graduate Studies

### Summary of External Review: November 2015

#### Highlights and Key Findings:

The report recognizes the significant advances in the regulations, structures and processes that were developed over the past five year despite the remarkably rapid growth over the past decade. However, the report concludes that the trajectory of graduate enrolment growth has outpaced the development of appropriate courses, services, and quality control measures. The report notes in particular:

- There is a lack of strategic plan to guide the growth;
- The necessary administrative support is not always available in some programs;
- There are a limited number of graduate courses;
- Regulations, policies and process are not always communicated clearly, or adhered to consistently;
- There is a lack of adequate and consistent funding for graduate students;
- The IGS program lacks clarity of purpose;

#### Key recommendations

- Recommendation: Define membership in the College with both approval and review/removal processes.

*Dean's Response: Although procedures around the administration of Membership in the College of Graduate Studies (and thus supervisory privilege) were articulated in Senate Policy O-4, there is no evidence of adherence to these procedures since the inception of O-4 in 2010. Senate Policy O-4 is currently under revision and will be brought forward for discussion and approval to Graduate Council and Senate during Winter Term II, 2017 (note: parts have been discussed at Graduate Council to date). Drastically revised procedures and criteria around membership, review of membership, and revocation of membership will be a critical component of the overall revision. I agree wholeheartedly with the Reviewers' recommendation. We cannot aspire to excellence in graduate supervision and education without the establishment of, and adherence to, rigorous standards of Membership in the College.*

- Recommendation: Create a graduate academic calendar for UBC-O.

*Dean's Response I agree that we need a separate on-line graduate calendar. Indeed, most graduate students are unaware that there are graduate studies sections embedded in the current undergraduate calendar. Since we are currently revising our website such that all three handbooks (the Graduate Student Handbook, the Graduate Program Coordinators Handbook, and the Handbook of Supervision and Examination) will be rewritten into one searchable document, we would work with the Senate office to determine the parameters and linkages needed between a graduate calendar and the CoGS website.*

- Recommendation: Revise the admission process so that CoGS provides only final approval based on program recommendations.

*Dean's Response I could not agree more. The past admission process has been unnecessarily labour intensive. The workflow analysis, which was carried out by Dr. Jenny Phelps, Assistant Dean in FoGS this past summer, also made this recommendation. The new CoGS streamlined admissions process, which is now in place for the current admissions period for September 2017 admissions, was introduced to Graduate Council on November 16, 2016. CoGS office staff will offer frequent training sessions over the*

*next few months to facilitate this process and we look forward to supporting graduate programs with respect to more competitive, timely admissions offers.*

- Recommendation: Introduce policy for minimum funding for the expected duration of the program.

*Dean's Response This recommendation has my strongest support. However, I wish to be exceedingly clear that responsibility for the funding of thesis/ research based graduate students is a shared responsibility across all areas of campus: centrally, at the Faculty/School level, at the Graduate Program level, and with CoGS support.*

*Currently only three graduate programs (Biology, Chemistry, and Biochemistry and Molecular Biology (BIMB)) support their PhD students at the Tri-Council level.*

- *Lack of commitment to funding increases times to completion and stress levels for graduate students and also erodes the graduate experience and the university's reputation.*
- *We need to have this conversation across campus. If we cannot 'afford' to support PhD students at the Tri-Council level (through packages which include TAs, RAships, AAships, Internal CoGS awards and external scholarships), then we should not admit as many PhD students. Graduate students are not here as sources of cheap labour nor are they here to facilitate tenure and promotion of faculty members at the expense of the integrity of graduate education, including adequate graduate student support.*
- *Many of our competitors offer guaranteed multi-year funding packages which range from \$25,000-\$35,000 or above for doctoral students*
- *As of Winter Term II, 2016, only 12% of our doctoral students held external funding (including Tri-Council) and while average funding levels per student came in just below \$16,000, a full 21% of doctoral students were unfunded from ANY source (PAIR data)*
- *In contrast, on the UBCV campus (2014-2015) data reveal averages by discipline for PhD (yr 1-4) which range from \$26,258 for Professional (non-health) to \$33,173 for Social Sciences, with an overall average of \$29,564; 25% held some type of external award.*

- Recommendation: The IGS program should focus exclusively on interdisciplinary studies

*Dean's Response The new proposed IGS refit will not allow disciplinary study to hide under its umbrella. Dr. Thomas Heilke, Associate Dean in CoGS, and our IGS Transformation team have all worked tremendously hard to craft a well-defined IGS program which will be solely based on Interdisciplinary Themes. I support this and look forward to bringing it through the Senate consultation and approval process. CoGS will also work with any graduate programs which feel that they have the resources and depth and breadth of expertise to propose a stand-alone disciplinary graduate program.*

- Recommendation: There should be a consistent set of graduate course offerings for all graduate programs

*Dean's Response These are excellent suggestions. The new IGS addresses these issues and will encompass a core graduate course and other graduate courses developed within themes and supported by faculty Deans. The new IGS also eliminates past heavy over-reliance on directed studies courses offered off the 'sides of desks', with the supervisor sometimes delivering two or three courses to the same student.*

Other recommendations relate to the governance and structure of the College, its support structure and staffing, the services for graduate students and post-doctoral fellows, as well as the role of graduate students' supervision in the promotion and tenure criteria.